MGate MB3280
Quick Installation Guide

Edition 4.0, December 2018

Overview

The MGate MB3280 is a 2-port Modbus gateway that converts between Modbus TCP and Modbus ASCII/RTU protocols. It can be used to allow Ethernet masters to control serial slaves, or to allow serial masters to control Ethernet slaves. Up to 16 TCP masters and 62 serial slaves can be connected simultaneously.

Package Checklist

Before installing the MGate MB3280 Modbus gateway, verify that the package contains the following items:

- 1 MGate MB3280 Modbus gateway
- Document & Software CD
- Quick Installation Guide
- Product Warranty Statement
- Power Adapter
- 4 Stick-on Pads
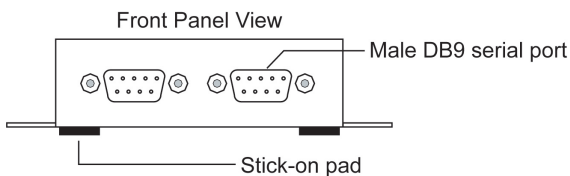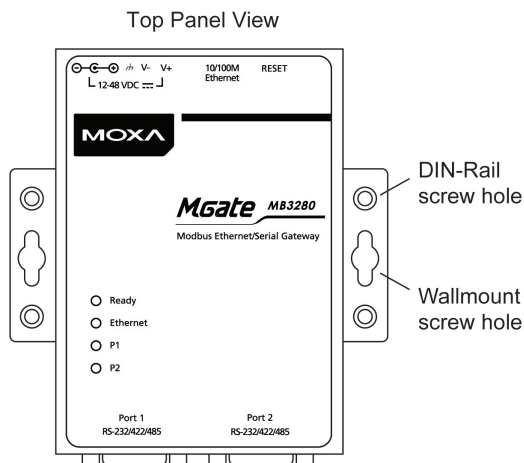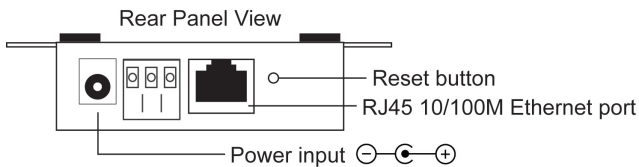
Optional Accessory

- **DK-35A:** DIN-rail mounting kit (35 mm)
- **Mini DB9F-to-TB Adaptor:** DB9 female to terminal block adapter
- **DR-4524:** 45W/2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC input
- **DR-75-24:** 75W/3.2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC input
- **DR-120-24:** 120W/5A DIN-rail 24 VDC power supply with 88 to 132 VAC/176 to 264 VAC input by switch

Notify your sales representative if any of the above items is missing or damaged.

NOTE The operating temperature of the power adapter in the box is from 0 to 40 °C. If your application is out of this range, please use a power adapter supplied by UL Listed External Power Supply (The power output meets SELV and LPS and is rated 12 - 48 VDC; minimum current is 0.73 A). Moxa has power adapters with wide temperature range (-40 to 75 °C, -40 to 167 F), the PWR-12150-(plug type)-SA-T Series, for your reference.

Hardware Introduction

As shown in the following figures, the MGate MB3280 has one DB9 male port for transmitting serial data.

Rear Panel View
- Reset button
- RJ45 10/100M Ethernet port
- Power input ⊖—◉—⊕

Top Panel View
- DIN-Rail screw hole
- Wallmount screw hole

Front Panel View
- Male DB9 serial port
- Stick-on pad

Reset Button—The reset button is used to load factory defaults. Using a pointed object such as a straightened paper clip to hold the reset button down for five seconds. Release the reset button when the Ready LED stops blinking in order to load the factory defaults.
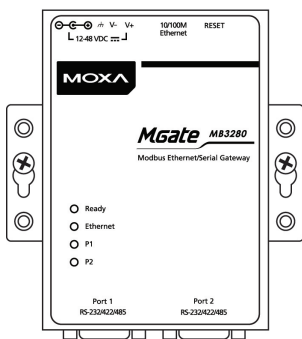
LED Indicators

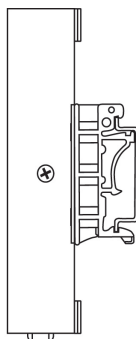| Name	Color	Function	
Ready	Red	Steady on:	Power is on and the unit is booting up
		Blinking:	IP conflict exists, or DHCP or BOOTP server is not responding properly
	Green	Steady on:	Power is on and the unit is functioning normally
		Blinking:	Unit has been found by the Location command in MGate Manager
	Off	Power is off or power error condition exists	
Ethernet	Orange	10 Mbps Ethernet connection	
	Green	100 Mbps Ethernet connection	
	Off	Ethernet cable is disconnected or has a short	
P1/P2	Orange	Serial port is receiving data.	
	Green	Serial port is transmitting data.	
	Off	No data is being transmitted or received through the serial port.	

Hardware Installation Procedure

STEP 1: After unpacking the MGate MB3280, connect the power adaptor.

STEP 2: Use a standard straight-through Ethernet cable to connect the MGate MB3280 to a network hub or switch. Use a cross-over Ethernet cable if you are connecting the gateway directly to a PC.

STEP 3: Connect your device(s) to the MGate MB3280's serial port.

STEP 4: Place or mount the MGate MB3280. The unit may be placed on a horizontal serface such as a desktop, mounted on a DIN-rail, or mounted on the wall.

Wall Mounting

DIN-rail Mounting

Software Installation

To install **MGate Manager**, insert the **MGate Documentation and Software CD** into your PC's CD-ROM drive, and then run the following setup program to begin the installation process from the "Software" directory:

MGM_Setup_[Version]_Build_[DateTime].exe

The filename of the latest version may have the following format:

MGM_Setup_Verx.x.x_Build_xxxxxxxx.exe.

For detailed information about MGate Manager, refer to the MGate MB3000 User's Manual, which can be found in the "Document" directory.

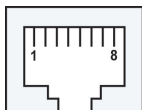The MGate MB3280 also supports login via a web browser.

Default IP address: **192.168.127.254**

Default account: **admin**
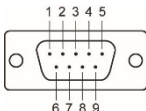
Default password: **moxa**

Pin Assignments

Ethernet Port (RJ45)

Pin	Signals
1	Tx+
2	Tx-
3	Rx+
6	Rx-

Serial Port (Male DB9)

Pin	RS-232	RS-422/485 (4-Wire)	RS-485 (2-Wire)
1	DCD	TxD-(A)	–
2	RxD	TxD+(B)	–
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	–	–
7	RTS	–	–
8	CTS	–	–
9	–	–	–

Environmental Specifications

Power Requirements	
Power Input	12 to 48 VDC
Power Consumption	250 mA @ 12 VDC, 90 mA @ 48 VDC
Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Humidity	5 to 95% RH
Dimensions With ears: Without ears:	22 x 100 x 111 mm (0.87 x 3.94 x 4.37 inch) 22 x 77 x 111 mm (0.87 x 3.03 x 4.37 inch)